Object Oriented Programming, Exercise 2

Topics: Increase coding routine in Python, using Git, pseudocode, a bit of classes and objects

Make a Git commit at least after every coding task.

Code in Python3 and follow the style guide.

1. Explain the following terms:
    a. Pseudocode
    b. Algorithm
    c. Data attribute
    d. Method
2. Take a look at the course's assessment (number of accepted exercises meaning certain grade). Write **pseudocode** for a program where user inputs the number of accepted exercises and program prints out the grade. Use informative and readable output prints.
3. After writing the pseudocode, code task 2. Simple code is enough, no objects needed.
4. Write **pseudocode** for a program that accepts student's name and grade as input and counts the average of grades of all students. If you have difficulties, you can fix the number of students to e.g. 5. Print out the average. Use informative and readable output prints.
5. After writing the pseudocode, code task 4. Simple code is enough, no objects needed.
6. Imagine you would have to code a simple alarm clock (shows time and alarms you at certain time you can set). Which data attributes will you have? Do the attributes have some value restrictions? You should find at least 5 data attributes. Which methods would you need? Which methods should be public and which ones should be private?
7. Take a look at the coin.py, write it down in your IDE and run it. See that coin gets tossed.
8. Modify the toss_the_coin() function so that there are 2 more options: Coin lands on the table upright (and not flat showing heads or tails) or coin drops on the ground and disappears (on a rabbit hole). Name the options properly and give informative and readable output of the status.
9. Write pseudocode for the alarm clock (see task 5).
10. Code the alarm clock, use objects.

Pseudocode:

https://www.geeksforgeeks.org/how-to-write-a-pseudo-code/